

Remarks

Status of the Subject Application

Claims 1-10, 12-14, 21, 22, 25-27, and 30-33 are allowed, claims 11, 15-20, 23, 245, 28, and 29 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, and claims 17 and 34 would be allowable if rewritten to overcome the Examiner's objections.

Claim Rejections Under The Second Paragraph Of 35 USC § 112

The Examiner rejected claims 11, 18, 19, 23, and 28-29 as including phrases that lack antecedent basis.

In accordance with the suggestion of the Examiner, Applicants amended "the sampling frequency" to read "a sampling frequency" in claim 11 above.

The Examiner rejected claim 18 stating the phrase "the number of samples" lacks antecedent basis. Applicants, accordingly, amended claim 18 above to recite the "constant number of samples," which is recited in the last two lines of claim 15 from which claim 18 depends.

The Examiner rejected claim 19 stating the phrase "the filter" lacks antecedent basis. Applicants have, accordingly, amended claim 19 above to recite "the self-tuning filter."

The Examiner rejected claims 23, 28, and 29 stating the phrase "the sampling frequency" lacks antecedent basis. Applicants have accordingly amended claims 23, 28, and 29 to recite "the frequency at which the digital clocking signal changes to the predetermined state," which is recited in claim 21, in place of "the sampling frequency." Applicants also amended claim 21 to clarify the digital clocking signal state.

The Examiner indicated he did not understand the term "that is consistent with the input signal received a constant number of samples previously" in claim 15. The term "an output at which is incident a filtered

signal that is consistent with the input signal received a constant number of samples previously" in claim 15 indicates that the output of the self-tuning filter is a filtered signal that corresponds to the unfiltered input signal and that the output signal follows receipt of the corresponding unfiltered input signal by a constant number of samples.

The Examiner also indicated that claims 25 and 28-29 lack connection to claim 21 from which they depend. Applicants have, accordingly, amended claims 25 and 28-29 to clarify that they refer to the frequency at which the digital clocking signal changes state.

Applicants further submit that claims 16-17, 20, and 24 should be allowable because the claims from which they depend are now in condition for allowance.

Claim Objections

Applicants have amended claim 34 above to recite "the clock-tunable filter" in place of "the filter" as suggested by the Examiner.

Applicants submit that the input signal coupled to the second input of the self-tuning filter in claim 15 is not coupled to the data acquisition unit of claim 17. Rather, the data acquisition unit includes a sensor input and that sensor input is coupled to the output of the self-tuning filter as recited in claim 17. For that reason, Applicants submit that claim 17 is proper as written and respectfully traverse the objection suggested by the Examiner.

Conclusion

Applicants appreciate the finding of the Examiner that claims 1-10, 12-14, 21-22, 25-27, and 30-33 are allowable and that claims 11, 15-20, 23-24, 28-29, and 34 would be allowable if rewritten to overcome the rejections and objections cited by the Examiner. Applicants respectfully submit they have rewritten those claims to overcome their respective rejections and objections and submit that claims 1-34 are in condition for allowance. Applicants further submit that no new matter has been introduced in the amendments presented

herein. If the Examiner has any further questions or comments, the Examiner is respectfully requested to contact Applicant's Attorney at the telephone number listed below so that any concerns may be expeditiously addressed.

Respectfully Submitted

A handwritten signature in black ink, appearing to read "Richard W. James", written over a horizontal line.

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Docket No. 049601-5001

RESPONSE TO OFFICE ACTION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Robert Douglas et al.
Serial No.: 10/086,900
Filed: March 1, 2002
For: Apparatus & Method for Adjusting Filter Frequency in Relation to Sampling Frequency

MAIL STOP – AMENDMENT

Commissioner for Patents

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I hereby state the following paper(s) are attached hereto:

Response to Office Action (10 pages).

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Richard W. James

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